



**GRISP**

RESEARCH SOLUTIONS

qPCR Detection Kits

## About GRiSP

Since 2008 located in Porto, Portugal, GRiSP empowers life science research by supplying researchers in the growing fields of molecular biology, biotechnology, biochemistry and genetics, with high-quality reagents, kits and solutions.

Dedicated to the development, production and commercialization of cutting-edge as well as everyday products, our team is highly motivated to provide these value-added tools at competitive prices, allowing our customers to drive their research to the next level.

At GRiSP, we strive to the perfect combination of performance, service and costs, always keeping you in mind. We believe this catalogue gives you access to a comprehensive range of products for DNA electrophoresis, Nucleic Acid Purification, PCR, qPCR, RNA research, protein research, cell biology and related areas, which meets your needs to achieve excellent results.

Find out more about us at [www.grisp.pt](http://www.grisp.pt) or ask your local distributor, and do not hesitate to contact us with your questions or suggestions, because your feedback matters!



**DNA ELECTROPHORESIS**



**PROTEIN RESEARCH**



**NUCLEIC ACID PURIFICATION**



**CELL BIOLOGY**



**DNA AMPLIFICATION**



**SOLUTIONS**



**RNA RESEARCH**



**qPCR DETECTION KITS**



**CULTURE MEDIA**

Food Safety and Fraud are growing global concerns, as pathogens and allergens are ever-increasing causes of foodborne illnesses worldwide.

Identification of species present in food, feed or ingredients is therefore of the utmost importance so that origin can be traced and cleaning processes can be monitored. Moreover, there is an increasing interest in Halal, Kosher, Vegetarian and Vegan food products, for which identification of meat and fish species in foodstuffs is essential.

Real-time PCR (qPCR) is the quickest and most accurate method to screen water, beverages, food and foodstuffs for pathogens or allergens. qPCR also allows for the identification of meat and fish as well as the detection of genetically modified organisms (GMOs).

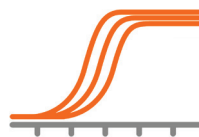
Xpert qDetect qPCR Detection Kits provide a fast and reliable method, with low limit of detection and 100% specificity, based on TaqMan probe real-time PCR reactions that amplify unique species-specific target sequences. The detection kits are compatible with all real-time PCR instruments equipped with FAM (for target) and ROX (for internal control) channels.



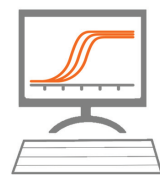
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**Enrichment**  
(only for Pathogen range)

(18-24h)

**Extraction**

(~1h)

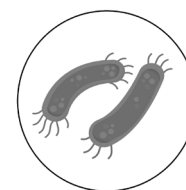
**qPCR**

(~1.5h)

**Data  
Analysis**

## PATHOGENS

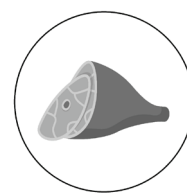
Pathogens are a major cause of foodborne and waterborne diseases, with an estimated 400,000 deaths every year. Traditional microbiological detection and confirmation methods typically require 4-5 days in order to obtain results. With GRiSP's qPCR Detection kits this time can be reduce to less than 2 days, allowing taking appropriate action much sooner. After initial pre-enrichment according to ISO norms, contamination can be detected fast and easy,with low L.O.D. and 100% specificity. Kits validated according to ISO 22118:2011.



		Size	Limit Of Detection	Specificity
<b>Xpert qDetect Salmonella spp.</b>	GDK01.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect E.coli (EPEC, VTEC and EHEC)</b>	GDK02.0150	50 rxn each	1-10 cells / 25g	100%
<b>Xpert qDetect L. monocytogenes</b>	GDK03.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect Vibrio spp.</b>	GDK04.0100	50 rxn each	1-10 cells / 25g	100%
<b>Xpert qDetect Campylobacter jejuni</b>	GDK05.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect E. coli Serotypes (O157,O26,O111,O103,O145)</b>	GDK06.0250	50 rxn each	1-10 cells / 25g	100%
<b>Xpert qDetect Cronobacter spp.</b>	GDK08.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect Legionella spp.</b>	GDK17.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect L. pneumophila</b>	GDK18.0100	100 rxn	1-10 cells / 25g	100%
<b>Xpert qDetect Duplex Legionella spp. and L. pneumophila</b>	GDK19.0100	100 rxn	1-10 cells / 25g	100%

## MEAT

Species authenticity can be extremely relevant to consumers for a variety of reasons including economic, medical and religious reasons. Hence, fraudulent substitution by less expensive ingredients, or inclusion of meat in vegetarian products are issues of major concern. Designed for the authentication of species present in unprocessed and processed food products, feed or ingredients, with detection limits of as little as 0.1% of species-specific DNA, even when highly fragmented.



		Size	Limit Of Detection	Specificity
<b>Xpert qDetect Cow</b>	GDK09.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Swine</b>	GDK10.0150	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Horse</b>	GDK11.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Duck</b>	GDK12.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Chicken</b>	GDK13.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Turkey</b>	GDK14.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Goat</b>	GDK15.0100	100 rxn	0.1% in 100ng total DNA	100%
<b>Xpert qDetect Sheep</b>	GDK16.0100	100 rxn	0.1% in 100ng total DNA	100%

## WINE

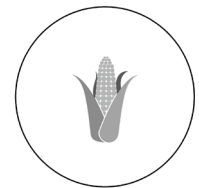
Wines, soft drinks, and dressings can be potentially spoiled by the presence of microorganisms such as yeasts. Traditional microbiological detection methods typically require long incubation times. GRiSP's qPCR Detection kits allow for an immense time reduction, enabling winemakers and other food producers taking appropriate action much sooner.



		Size	Limit Of Detection	Specificity
<b>Xpert qDetect Brettanomyces/ Dekkera</b>	GDK23.0100	100 rxn	10 <sup>2</sup> -10 <sup>3</sup> cells / 50 ml	100%
<b>Xpert qDetect Zygosaccharomyces bailii</b>	GDK24.0150	100 rxn	10 <sup>2</sup> -10 <sup>3</sup> cells / 50 ml	100%

## GMOs

In most countries, usage of GMOs is highly regulated. For the enforcement of national legislation, efficient detection of genetically modified organisms in food and feed products is essential. Taking into account the large diversity of GMOs, GRiSP's qPCR Detection kits are intended for initial generic screening for the detection of the promotor 35S from cauliflower mosaic virus, the terminator NOS from *Agrobacterium tumefaciens* and/or the promotor from FigWorth Mosaic Virus (P-FMV), as these regulatory sequences are the most frequent elements present found in transgenic material.



		Size	Limit Of Detection	Specificity
<b>Xpert qDetect P-35S and T-NOS</b>	GDK20.0100	100 rxn each	0.1% in 100ng of GMO DNA	100%
<b>Xpert qDetect P-35S, T-NOS and P-FMV</b>	GDK21.0150	50 rxn each	0.1% in 100ng of GMO DNA	100%
<b>Xpert qDetect P-FMV</b>	GDK22.0100	100 rxn	0.1% in 100ng of GMO DNA	100%

## ALLERGENS

The presence of allergens in food is an issue of major concern, as reactions triggered by the ingestion of even minimal doses of food allergens varies but could lead to severe potentially lethal anaphylactic shocks. For the enforcement of national legislation and combat of fraud, efficient identification is essential.

According to the European Commission Directive 2002/86/EC and other national legislations, the most important food allergens must be disclosed on the labels of food products, however, for all kind of reasons, this may not be the case. GRiSP's qPCR Detection kits allow for the detection of very low amounts of DNA from common food allergens, even when DNA is highly fragmented due to food processing.

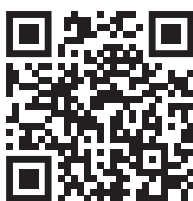


		Size	Limit Of Detection	Specificity
<b>Xpert qDetect Celery</b>	GDK25.0100	100 rxn	10 pg / 100ng total DNA	100%
<b>Xpert qDetect Sesame</b>	GDK26.0100	100 rxn	1 pg / 100ng total DNA	100%
<b>Xpert qDetect Peanuts</b>	GDK27.0100	100 rxn	10 pg / 100ng total DNA	100%
<b>Xpert qDetect Soy bean</b>	GDK28.0100	100 rxn	50 pg / 100ng total DNA	100%
<b>Xpert qDetect Hazelnuts</b>	GDK29.0100	100 rxn	0.1 pg / 100ng total DNA	100%
<b>Xpert qDetect Cashew</b>	GDK30.0100	100 rxn	1 pg / 100ng total DNA	100%
<b>Xpert qDetect Lupin</b>	GDK31.0100	100 rxn	1 pg / 100ng total DNA	100%
<b>Xpert qDetect Mustard</b>	GDK32.0100	100 rxn	10 pg / 100ng total DNA	100%
<b>Xpert qDetect Almond</b>	GDK33.0100	100 rxn	1 pg / 100ng total DNA	92%
<b>Xpert qDetect Walnut</b>	GDK34.0100	100 rxn	0.01 pg / 100ng total DNA	94%
<b>Xpert qDetect Pecan</b>	GDK35.0100	100 rxn	0.01 pg / 100ng total DNA	100%

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